IN THE CLAIMS:

The claims of the application have not been amended. A listing of the presently allowed claims appears below.

1.-7. (Cancelled)

8. (Previously presented) A process for preparing 1,5-bis(4-hydroxy-3 -methoxyphenyl)-penta-1,4-dien-3-one, characterized in that it comprises contacting vanillin and acetone under ultrasonic irradiation.

9. (Previously presented) A process according to claim 8, characterized in that vanillin and acetone are contacted in a mole ratio of 2:1.

10. (Previously presented) A process according to claim 8, characterized in that vanillin and acetone are contacted at temperatures ranging from 25°C to 60°C.

11. (Previously presented) A process according to claim 8, characterized in that the ultrasonic irradiation is in the range of from 25 to 40 KHz.

12. (Previously presented) A process according to claim 8, characterized in that vanillin and acetone remain in contact for a period of time ranging from 1 to 3 hours.

13. (Previously presented) A process according to claim 8, characterized in that it additionally comprises purifying the purification of 1,5-bis(4-hydroxy-3-methoxyphenyl) -penta-1,4-dien -3-one obtained, mixing the reaction mixture in water/ice until a crude product is obtained, then dissolved in a sodium or potassium hydroxide solution and filtered; the filtrate being treated with an acid selected from the group consisting of hydrochloric acid and sulfuric acid and additional filtration, successive washes with water being then carried out until a neutral pH is achieved.

14. (Previously presented) A process according to claim 13, characterized in that the sodium or potassium hydroxide solution is at a concentration between 10% and 30%.

15. (Previously presented) A process according to claim 13, characterized in that the hydrochloric or sulfuric acid is at a concentration between 10% and 30%.

16. (Previously presented) A process for preparing 1,5-bis(4-hydroxy-3 -methoxyphenyl)-penta-1,4-dien -3-one, characterized in that it comprises mixing vanillin and acetone in an acidic medium under ultrasonic irradiation.

17. (Previously presented) A process according to claim 16, characterized in that it additionally comprises purifying 1,5-bis(4-hydroxy-3-methoxyphenyl)-penta-1,4-dien-3-one obtained, mixing the reaction mixture in water/ice until a crude extract isobtained, then dissolved in a sodium or potassium hydroxide solution and filtered; the filtrate being treated with hydrochloric or sulfuric acid and additionally filtered, successive washes with water being carried out until a neutral pH is achieved.

18. (Previously presented) A process for preparing 1,5-bis(3-methoxy-4 -acethoxyphenyl)-penta-1,4-dien -3-one, characterized in that it comprises mixing 1,5-bis(4-hydroxy-3-methoxyphenyl)-penta-1,4 -dien-3-one, obtained by the process defined in claim 8 , and acetic anhydride and sodium acetate.

19. (Previously presented) A process of preparing 1,5-bis(3-methoxy-4 -acethoxyphenyl)-penta-1,4-dien -3-one, characterized in that it comprises mixing 1,5-bis(4-hydroxy-3-methoxyphenyl)-penta-1,4 -dien-3-one, obtained by the process as defined in claim 1, in dimethylformamide and potassium carbonate, and then adding 3-methyl-but-2-enyl bromide.

20. (Previously presented) A process according to claim 17, characterized in that 3-methyl-but-2-enyl bromide is added to the mixture of 1,5-bis(4-hydroxy-3-methoxyphenyl) -penta-1,4-dien-3-one.

21. (Previously presented) A process according to claim 20, characterized in that it additionally comprises purifying 1,5-bis[3-methoxy-4-(3-methyl-but-2-enyloxy) -phenyl]-penta-1,4-dien-3-one, putting said compound into water with ice, then extracting with chloroform, the washing the organic phase with NaHSO4 and then water; wherein the chloroform phase is dried with anhydrous sodium sulfate, and then the solvent is filtered and rotoevaporated, and then the product is passed through a chromatographic column filled with silica gel.

22. (Previously presented) A process of preparing 1,5-bis(3,4-dimethoxy-phenyl) -penta-1,4-dien-3-one, characterized in that it comprises mixing 3,4-dimethoxybenzoaldehyde and acetone in an ultrasound bath.

23. (Previously presented) The process according to claim 22 characterized in that 3,4-dimethoxybenzoaldehyde and acetone are mixed in a ratio of 2:1.

24. (Previously presented) A process according to claim 22, characterized in that it additionally comprises purifying the 1,5-bis(3-,4-dimethoxy-phenyl)- penta-1,4-dien-3-one obtained, putting water with ice, filtering the precipitate, washing it with water, wherein the water phase is extracted with chloroform and the chloroform phase is dried with anhydrous sodium sulfate, filtered and rotoevaporated.

25. (Previously presented) A process of preparing 1,5-bis(3-,4-dimethoxy-phenyl) -penta-1,4-dien-3-one, characterized in that it comprises mixing 1,5-bis(4-hydroxy-3-methoxyphenyl)-penta-1,4-dien-3-one obtained, by the processes as defined in claim 8, with dimethyl sulfate or methyl iodide.

26. (Previously presented) A process according to claim 25, characterized in that it additionally comprises purifying 1,5-bis(3,4-dimethoxy-phenyl)-penta-1,4-dien-3-one in ice-cold water, the formed precipitate is filtered, and then neutralized with HCl; then the product is washed with water until a neutral pH is achieved.

27. (Previously presented) A process of preparing 1,5-bis(4-hydroxy-3 -methoxyphenyl)-penta-1,4-dien-3 - yliden-malonitryl, characterized in that it comprises mixing 1,5-bis(4-hydroxy-3-methoxyphenyl)-penta-1,4-dien-3-one, obtained by the process as defined in claim 8 and malononitrile.

28. (Previously presented) Pharmaceutical composition for the treatment of cancer, wherein said composition comprises at least one of the compounds obtained by the process defined in claim 8.

29. (Previously presented) A therapeutic method for the treatment of cancer, characterized in that one administers a therapeutically effective amount of a compound obtainable by the process as defined in claim 8 to a subject in need of such a treatment.